

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problems Mailbox.**

# (12) UK Patent Application (19) GB (11) 2 191 030 (13) A

(43) Application published 2 Dec 1987

(21) Application No 8711480

(22) Date of filing 15 May 1987

(30) Priority data

(31) 8612480

(32) 22 May 1986

(33) GB

(71) Applicant

Bell-Fruit Manufacturing Company Limited

(Incorporated in United Kingdom)

Leen Gate, Lenton, Nottingham NG7 2ND

(72) Inventors

Simon Charles Melen

Stephen John Murray

(74) Agent and/or Address for Service

Barker Brettell & Duncan,

138 Hagley Road, Edgbaston, Birmingham B16 9PW

(51) INT CL\*

G07F 17/34

(52) Domestic classification (Edition I):

G4V 118 AA

U1S 1174 G4V

(56) Documents cited

None

(58) Field of search

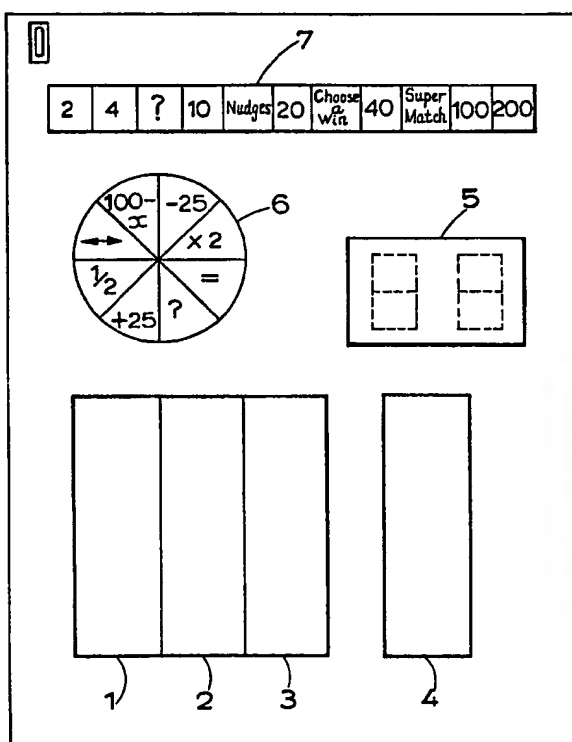
G4V

Selected US specifications from IPC sub-classes A63F

G07F

## (54) Gaming and amusement machines

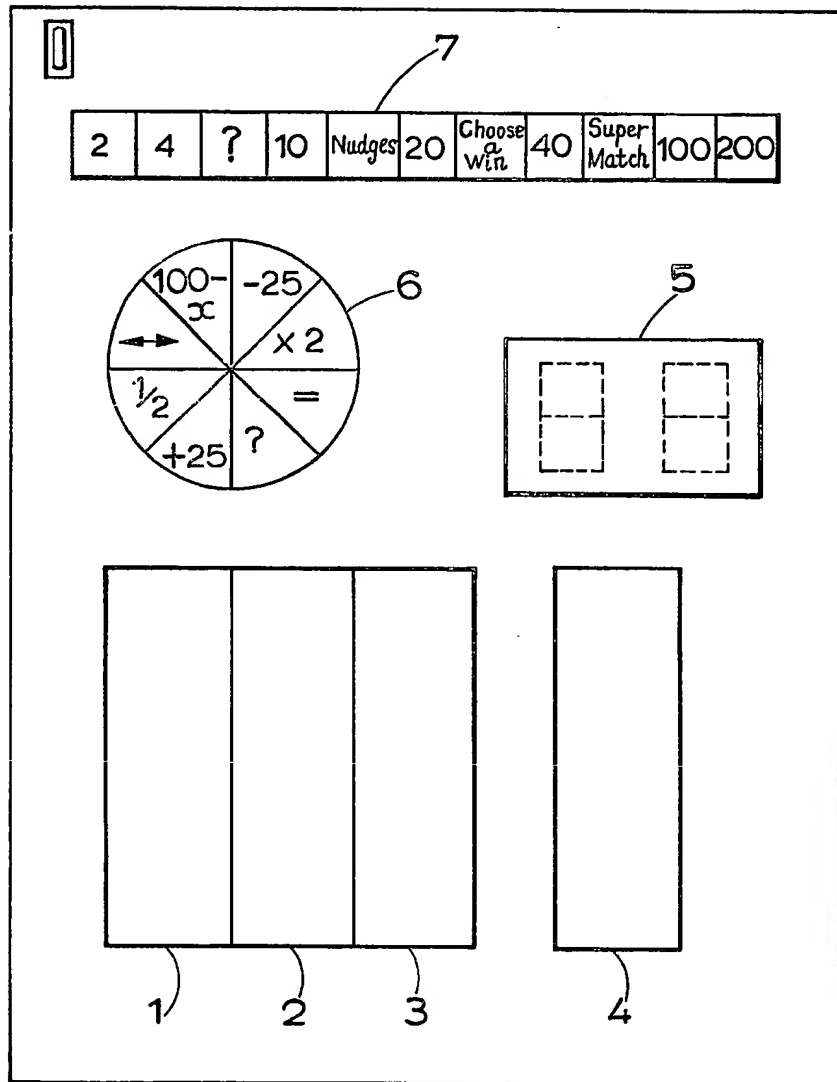
(57) In a fruit machine having three normal reels (1, 2 and 3) and a fourth reel (4) which carries numbered symbols, a special awards feature is controlled by a number count displayed on a two-digit counter (5) and which is incremented progressively every time a game is played. During the special awards feature the player is given an opportunity to spin the fourth reel (4) and each time he does so he advances one step along an award trail (7) towards a jackpot. However, the number count (5) is decremented by the figure on the fourth reel (4) which comes to a halt on the win line after each spin on the fourth reel (4) and the special awards feature is lost when the number count (5) falls below zero. The number count may also be influenced on occasions by other factors such as by arithmetical operations on a feature wheel display (6), the particular operation being determined at random or under the control of the player.



GB 2 191 030 A

1/1

2191030



## SPECIFICATION

### Gaming and amusement machines

5 This invention relates to coin-released or token-released gaming or amusement-with-prizes machines of the kind generally known as fruit machines, in which a number of reels, usually three or four, carrying symbols on their  
10 peripheries, are sent in rotation after insertion of a coin or token and when they come to a halt if the symbols on the reels in a certain position, the so-called win line, make up one of a number of predetermined combinations a  
15 prize is awarded, e.g. in the form of cash, tokens, credits, or further games. Instead of actual reels, their equivalent may be used, e.g. discs, or representations of symbols projected optically or in the form of images on a video  
20 screen. Such gaming or amusement-with-prizes machines will hereinafter be referred to as of the kind set forth.

In addition to prizes awarded on the result of the initial game there are also numerous  
25 features offered, often at random, following a non-winning game, e.g. so-called ladders, trails, and other opportunities to gain bigger prizes; it is also possible, following a winning game, to gamble the prize already won.

30 The aim of the invention is to provide a novel form of game of this general kind but having new features which are particularly attractive to the player. According to the invention, in a gaming or amusement-with-prizes machine of the kind set forth a special awards  
35 feature is controlled by a number count which is incremented or decremented progressively and/or at random and decremented or incremented by the amount of a figure which results from the spinning of a further reel, the  
40 opportunity to spin this further reel being awarded following a non-winning game and giving the chance of progress along the awards feature, for instance along an awards  
45 'ladder' or 'trail' leading to a jackpot, but in the event of the number going beyond a predetermined minimum or maximum the feature is lost.

Preferably, the further reel carries symbols representing numbers, the number count is incremented when normal games are played and decremented by the number represented by the symbol on the further reel which comes to a halt on the win line after each spin of the  
50 further reel, the feature being lost when the number count falls below a predetermined minimum, conveniently zero.

Thus, when the player is given the opportunity to spin the further reel (usually a fourth  
60 reel), he wants to make use of it as many times as he can, because each time he spins it he is advanced further along the ladder or trail towards the jackpot, but at the same time every spin results in a number which decreases the number count and increases the  
65

risk of that count going below zero and losing him the feature altogether.

70 It will be understood that arithmetically the above-described system could, within the scope of the principle behind the invention, be inverted, in that the number on the counter could be decremented progressively or at random, and the numbers that appear on the fourth reel are added to it rather than subtracted, and in that case the feature is lost  
75 when the number goes beyond a predetermined maximum.

80 It is believed that this principle of using a counter, on which the number is incremented and decremented by other factors, to control a feature, the feature being lost when the number oversteps a certain limit, is broadly new.

In one preferred example the number is a two-digit one, i.e. runs from zero to 99, and is prominently displayed on a counter. The number count may be increased or decreased progressively by a given number, such as one, every time a game is played. Alternatively or  
90 additionally the number count may be altered on certain occasions in accordance with one of a number of arithmetical operations determined either at random or under the control of the player in an additional feature.

95 The present invention will now be described, by way of example only, with reference to the accompanying drawing. The drawing shows a fruit machine having three reels 1, 2 and 3 which carry fruit symbols, a fourth  
100 reel 4, a two-digit counter 5, a feature wheel display 6 and an award trail 7.

During play on the fruit machine ordinary games may be played either on the first three reels 1, 2 and 3 or, when the fourth reel 4 carries fruit symbols, on all four reels. Regardless of whether or not the fourth reel 4 takes part in an ordinary game it carries numbered symbols, for instance figures superimposed on fruit symbols or figures by themselves.

110 The two-digit counter 5 may, for instance, comprise a numeric liquid crystal display which can display any number between zero and 99. Every time a game is played on the machine the number displayed on the counter 5 is progressively increased by one up to a maximum of 99. The number displayed on the counter 5 may also be influenced at random by other factors. For example, in one typical case, every time a cherry symbol lands on the win line in an ordinary game it is arranged to reverse the digits displayed on the counter (e.g. if the number displayed was 19, it becomes 91). It will be apparent that the possibilities on these lines are endless.

125 Another such possibility involves the feature wheel display 6 on the display panel. A ring of boxes containing instructions for different arithmetical operations to be performed on the number on the counter is made available on certain occasions and the different boxes flash  
130

at random. When the flashing stops the instruction in that box is performed. The instructions may, for example, be to double the number on the counter or to halve it, to subtract it from 100, to reverse its digits, or to add or subtract a certain fixed amount. The player may be given some degree of control over the wheel feature, by having a stop button by which he can try to bring the flashing to stop on the particular arithmetical instruction that suits his purpose.

This wheel feature may be made available at random following a non-winning game, or when a special symbol on one of the normal reels 1, 2 and 3 comes to a halt on the win line.

When the special awards feature of the invention becomes available, for example randomly at the end of a non-winning game or on completion of a 'fruit ladder' or 'numbers trail', the player is given an opportunity to spin the fourth reel 4 on its own for as many times as he likes with the aim of advancing as far as possible along the award trail 7 without losing the feature. The award trail 7 may be of a known kind and in the example shown in the drawing it has eleven steps with prize awards increasing from a small award at one end to a jackpot at the other end. The prize awards may be cash awards, tokens, credits or feature awards leading to further prizes, for instance 'nudges' or 'choose-a-win' features.

During the special feature, each time the player spins the fourth reel 4 he advances one step along the award trail 7 to an increased award. However every time the reel 4 is spun, the figure appearing on the win line when it comes to a halt is deducted from the figure appearing on the counter and as soon as that figure goes below a predetermined minimum, zero, the feature is lost altogether and the player either loses everything or is awarded a minimum consolation award such as two credits.

Thus when the player is playing the special feature he must decide either to collect the award he has reached on the award trail 7 or to spin the fourth reel 4 another time in the hope of advancing along the award trail 7 but with a risk of losing the feature and the award already gained. The special feature therefore increases the attractiveness of the machine to a player.

It will be understood that during the special feature other symbols on the fourth reel 4 apart from numbers may also be used to manipulate the figure on the counter to the advantage or disadvantage of the player. For instance, the wheel feature described above may come into operation during the special feature when a special symbol on the fourth reel 4 comes to a halt on the win line. All the time during the special feature, the player is endeavouring to advance along the trail to reach a jackpot but the more use he makes of

the fourth reel spins to do this the more he risks pushing the value of the number displayed beyond the limit at which he loses everything (the limit being zero in the example described).

#### CLAIMS

1. A coin-released or token-released gaming or amusement-with-prizes machine of the kind set forth in which a special awards feature is controlled by a number count which is incremented or decremented progressively and /or at random and decremented or incremented by the amount of a figure which results from the spinning of a further reel, the opportunity to spin the further reel being awarded following a non-winning game and giving the chance of progress along the awards feature, but in the event of the number going beyond a predetermined minimum or maximum the feature is lost.

2. A gaming or amusement-with-prizes machine as claimed in claim 1 in which the further reel carries symbols representing numbers, the number count is incremented when normal games are played and decremented by the number represented by the symbol on the further reel which comes to a halt on the win line after each spin of the further reel, the feature being lost when the number count falls below a predetermined minimum.

3. A gaming or amusement-with-prizes machine as claimed in claim 2 in which the predetermined minimum is zero.

4. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims in which the number count is displayed on a two-digit counter.

5. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims in which the number count is increased or decreased progressively by a given number every time a game is played.

6. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims including an additional feature by means of which the number count is altered on certain occasions in accordance with one of a number of arithmetical operations determined either at random or at least partly under the control of the player.

7. A gaming or amusement-with-prizes machine as claimed in claim 6 in which the additional feature is made available at random following a non-winning game.

8. A gaming or amusement-with-prizes machine as claimed in claim 6 in which the additional feature is made available when a special symbol on one of the normal reels or on the further reel comes to a halt on the win line.

9. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims in which after each spin of the further reel during the special awards feature, the player advances along an award ladder or trail

leading to a jackpot, provided that the number has not gone beyond the predetermined minimum or maximum.

10. A gaming or amusement-with-prizes  
5 machine substantially as described herein with reference to the accompanying drawing.

---

Printed for Her Majesty's Stationery Office  
by Burgess & Son (Abingdon) Ltd, Dd 8991685, 1987.  
Published at The Patent Office, 25 Southampton Buildings,  
London, WC2A 1AY, from which copies may be obtained.